

**To:** Robert Law[rlaw@demaximis.com]  
**Cc:** Kirchner, Scott[KirchnerSF@cdmsmith.com]  
**From:** Vaughn, Stephanie  
**Sent:** Tue 10/22/2013 5:47:20 PM  
**Subject:** FW: EQuIS dataset CWCM Events  
2013 CWCM High Flow Volume.xlsx

Hi Rob,

Could you please help address the following questions?

Thanks,  
Stephanie

**From:** Kirchner, Scott [mailto:KirchnerSF@cdmsmith.com]  
**Sent:** Monday, October 21, 2013 11:50 AM  
**To:** Vaughn, Stephanie  
**Cc:** Franklin, Elizabeth A NWK (Elizabeth.A.Franklin@usace.army.mil); Budney, Sharon; Tsang, Frank; Wands, James (James.Wands@hdrinc.com); Garland, Edward (Edward.Garland@hdrinc.com); Badri.Yadav@hdrinc.com  
**Subject:** FW: EQuIS dataset CWCM Events

Stephanie, please forward James' question about the HV sample data to Rob. I can't answer the primary question about the sample ID name.

James, I'm not sure why Badri's email might have been bounced back.

I think it would be best to have the CPG respond to your questions. There are slight differences in the two samples even though the sample IDs are the same. We did have the CPG collect a few composite water samples from the effluent (after the PUFFs) that might be what the water results are from. I would need to go back through the raw data and CoCs to confirm this. But since we have a replicated sample ID question as well it would be best to have the CPG respond to both questions.

Scott F Kirchner

**From:** Wands, James [<mailto:James.Wands@hdrinc.com>]  
**Sent:** Monday, October 21, 2013 10:51 AM  
**To:** Kirchner, Scott  
**Cc:** Garland, Edward; Yadav, Badri  
**Subject:** FW: EQulS dataset CWCM Events

Scott,

Badri was working with the water column data and came across a couple of issues below. He tried to email you, but it bounced back for some reason so I am giving it a shot. The first issue is that it looks like one of the datasets appears twice.

The second series of questions relates to how the high volume data were reported.

In the spreadsheet Badri provided I see two puff values, I am assuming these are the two puffs that were in series in the device and should be added, correct?

The two PUFF values in mass units should be the mass of chemical before dividing by the volume filtered, and should be the same measurements as the two mass per volume values.

The question would be what is the non-PUFF value reported here? It looks like it may be a grab that they took alongside the high volume sample or something?

The attached spreadsheet does not have the particulate measurements associated with the sample, but I went back to Badri and confirmed that they are there. The particulate measurement is reported in mass of contaminant per average mass of solids, so we just need the solids concentration used, which is reported, in order to get a total concentration.

Thanks,

James

**From:** Yadav, Badri  
**Sent:** Friday, October 18, 2013 4:56 PM  
**To:** [KirchnerSF@cdmsmith.com](mailto:KirchnerSF@cdmsmith.com)  
**Cc:** Wands, James; Garland, Edward  
**Subject:** EQuIS dataset CWCM Events

Hello Scott,

I am working on creating a water column dataset to compare data with model values. In order to filter only water column data I chose W, WS and PUF (for “2013 CPG CWCM Sampling - High Volume” datasets) matrix\_code. I have couple of questions with the filtered dataset:

1. task\_code “2012 CPG CWCM Sampling – Round 5” and “2012 CPG CWCM Sampling – low flow” seems to contain same dataset because each sys\_loc\_code is repeated in these two dataset with same result value and coordinates.
2. In dataset “2013 CPG CWCM Sampling - High Volume 1” most have of the chemicals have five observation reported for each sampling station [attached excel file has values from one station [12I-T102] for 2 chemicals [“2,3,7,8-Tetrachlorodibenzo-p-dioxin” and “Total Trichlorobiphenyls”]]. One value reported is from matrix\_code “WS” while four others are for matrix code “PUF” out of these 4 values 2 are reported in weight units (pg) and remaining two in concentrations units (pg/l) but values in weight units are reported as “T” (Total) or “N” fraction while values in concentration units are reported as “D” (Dissolved) fraction (Column AE).

CWCM other events dataset also has fraction as “T” and “D” for few chemicals in concentration units.

Can you please confirm that whether “2012 CPG CWCM Sampling – Round 5” and “2012 CPG CWCM Sampling – low flow” are same dataset, and also clarify which values out of 5 for a given chemical to use in “2013 CPG CWCM Sampling - High Volume 1” and how to handle values that are reported in weight units?

Thanks,

**Badri v. YadavHDR|HydroQual, Inc.**

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